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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,311	07/07/2003	Timo Kleinwachter	HOE-764	9366
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EXAMINER				
LANG, AMY T				
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3731				
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05/19/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/615,311

**Applicant(s)**

KLEINWAECHTER, TIMO

**Examiner**

AMY T. LANG

**Art Unit**

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-5, 7, 9-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 9-20, and 22-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

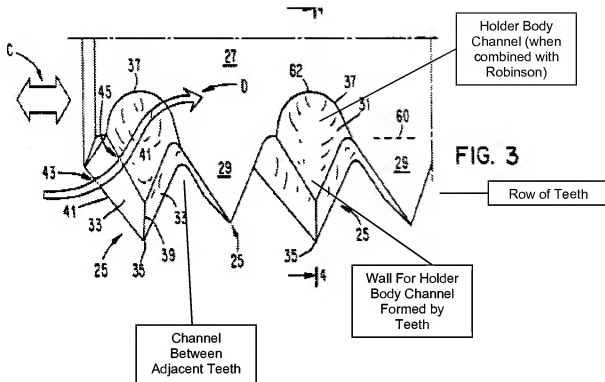
3. **Claims 1, 3-5, 7, 9-12, 13-20, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 5,306,285) in view of Robinson (US 1,894,832).

With regard to **claim 1**, Miller et al. (hereinafter Miller) discloses a surgical saw blade for cutting bone (column 1, lines 5-15) comprising a holder body (22, 53) and a row of teeth (25) (Figures 2A and 5A). As shown in Figure 5B, the holder body comprises two apertures, extending between lateral sides of the body. Therefore the apertures overlap the instantly claimed plurality of recesses. As shown in Figure 3, the teeth are formed at one end of the holder body and comprise three flanks. Additionally,

each tooth in the row of teeth is tetrahedral in shape. The first tooth flanks of every other tooth inherently lie in a plane (Figure 3). Channels are formed between adjacent teeth which are adapted to carry away the cuttings of material (Figure 3). As shown in Figure 3, the channels extend behind the tooth base and connect to troughs (31) (column 3, lines 14-20). Miller teaches the troughs collect the cutting material to increase durability and extend the life of the surgical saw blade (column 3, line 66 through column 4, line 17).

However, Miller does not disclose the troughs as connected to form a holder body extending along the row of teeth. Robinson discloses a comb comprising one trough (5) extending the along the row of teeth (4) (Figure 1). The trough is utilized to collect excesses material, similar to the troughs of Miller (column 1, lines 41-43; column 2, lines 73-75). A single trough advantageously collects excess material and allows for easy removal as well. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention for the troughs of Miller to be joined and form one single trough that extends along the row of teeth. This single trough would then also form a recess.

The single trough of Miller in view of Robinson that forms the claimed holder body would extend along the row of teeth where the troughs (31) of Miller are located. Therefore, the teeth of Miller would form a wall for the single trough and the single trough would be interpreted by the channels formed between adjacent teeth.



With regard to **claim 3**, as shown in Figure 3 of Miller, the channels extend behind the tooth base at a depth of between 20% and 60% of the height of the tooth above the base. If Applicant were to argue that Miller does not specifically disclose the depth of each channel as 20% to 60% of the height of the tooth, it is the examiner position that at the time the invention was made, such channel depths would have been obvious to one having ordinary skill in the art. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

With regard to **claims 4 and 5**, as shown in Figure 3 of Miller, the channels are each formed in the form of a trough and are located between non-parallel tooth flanks of adjacent teeth.

With regard to **claim 7**, the holder body opening (54) is behind each tooth base (Figure 5A).

With regard to **claim 9**, the holder body opening is bounded by the row of teeth since the teeth provided an upper edge that serves to confine the holder body opening.

With regard to **claim 10**, as shown in Figure 5A of Miller, the holder body opening (54) is formed between a lower face and an upper face of the holder body (53) since this indentation penetrates through the two faces of the holder body.

With regard to **claim 11**, as shown in Figure 5B, Miller discloses two holder body channels that are parallel.

With regard to **claim 12**, although Miller does not specifically disclose the depth of the holder body channel with reference to the thickness of the holder body, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to alter the depth of the holder body channel from 15% to 35% of the holder body thickness. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

With regard to **claim 13-15**, as shown in Figure 3, each first tooth flank, those which connect with a trough, is parallel with an upper face of the holder body. Therefore, the first tooth flanks of adjacent teeth are parallel. Additionally, the second and third tooth flanks are arranged at an angle to an upper and lower face of the holder body.

With regard to **claim 16**, the tooth tips (35) are displaced relative to one another with reference to a direction of width of the holder body (Figure 5A).

With regard to **claims 17 and 18**, the holder body extends substantially equidistantly between a first and second surface, the sides of the surgical saw as shown in Figure 4. The first tooth flank protrudes beyond the first or second surface.

With regard to **claim 19**, as shown in Figures 2A and 5A, the first tooth flank is substantially parallel to the first or second surface.

With regard to **claim 20**, although Miller does not specifically disclose the thickness of the holder body at the first tooth flanks is between 4% and 12% more than a spacing between the first surface and second surface, at the time the invention was made, it would have been an to a person of ordinary skill in the art to alter the thickness of the holder body and spacing between the tooth flanks. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

With regard to **claim 22**, hub (22) comprises a receiving portion that connects to a handpiece which powers and oscillates the surgical saw (Column 4, lines 34-36).

4. **Claims 23-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 5,306,285) in view of Robinson (US 1,894,832) as applied to claims 1 and 20 above, and further in view of Kullmer (US 2002/0133186 A1)..

Miller discloses a surgical saw blade comprising a holder body and a row of teeth. However, Miller does not specifically disclose a plurality of channel-like recesses arranged to form a resilient portion and a stiff portion.

As shown in Figure 1, Kullmer discloses a surgical saw blade with a plurality of channel-like recesses that advantageously allow a user to view the working area ([0019]). Therefore, it would have been obvious for the surgical blade of Miller to comprise a plurality of recesses for the advantage disclosed by Kullmer. These recesses intrinsically produce a resilient portion near the row of teeth since the arrangement and construction of the recesses allows for less flexural rigidity. Therefore, a relatively stiff portion is produced near the proximal end of the surgical saw. As shown in Figure 1, the recesses are also formed symmetrically with reference to an axis of symmetry. Therefore, incorporating the recesses of Kullmer on the surgical blade of Miller would also produce a resilient portion and stiff portion of the holder body of Miller.

#### ***Response to Arguments***

5. Applicant's arguments filed 02/23/2009 have been fully considered but they are not persuasive.

Specifically, applicant argues (A) that the troughs (31) of Miller are formed on the side of the teeth and not between adjacent teeth so that the troughs do not overlap the instantly claimed channels.



With respect to argument (A), as shown above, channels between adjacent teeth, and not the troughs, overlap the instantly claimed channels.

Specifically, applicant argues (B) that in the instantly claimed invention the channels do not connect to form the holder body channel, but rather connect to a separately formed holder body channel.

With respect to argument (B), as best understood, Applicant is arguing that the channels, formed between adjacent teeth, do not connect to the claimed holder body channel but instead connect to a separate holder body channel. However, Figures 2 and 3 show the channels (60) as directly connected to the holder body channel (62). Additionally, instant claim 1 recites wherein the channels connect to at least one recess and wherein this recess is the holder body channel. Miller in view of Robinson overlaps this interpretation since the channels between adjacent teeth connect to the troughs, which form a holder body channel in view of Robinson.

Specifically, applicant argues (C) that the apertures (54) of Miller do not overlap the instantly claimed recesses since they do not extend along a row of teeth and are not connected to the troughs.

With respect to argument (C), as shown in Figure 5B of Miller, the apertures (54) do extend along the row of teeth since they follow the line of the teeth. Furthermore, as claimed, only one recess is connected to the channels between adjacent teeth. The

apertures (54) overlap the other claimed recesses and the recess formed by the troughs overlaps the recess connected to the channels.

Specifically, applicant argues (D) that Robinson is far removed from a surgical blade.

With respect to argument (D), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the teachings of Robinson are reasonable pertinent since they provide a tract in which excess material can be removed from the active area. Miller teaches the troughs serve such a purpose and Robinson teaches an advantageous tract.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMY T. LANG whose telephone number is (571)272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05/13/2009  
/Amy T Lang/  
Examiner, Art Unit 3731

/Anh Tuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731  
5/16/09